Lake Piney Z Lake Vegetation Index Results (7-24-2013)

The Lake Vegetation Index score for Piney Z was 47, placing the lake's vegetative community in the healthy category.

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1. County staff are available to discuss this information as desired.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

Aquatic life use category	LVI Range	Description
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 33% of total taxa. Less that 10% of the taxa are sensitive.

Fifty-four species were found during the survey. False nettle (*Boehmeria cylindrical*), buttonbush (*Cephalanthus occidentalis*), American sweetgum (*Liquidambar styraciflua*), American elderberry (*Sambucus canadensis*) and Chinese tallow tree (*Sapium sebiferum*) were the most dominant species in the lake. Other native shoreline vegetation included; red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*) and pond cypress (*Taxodium ascendens*). Unfortunately, camphor tree (*Cinnamomum camphora*), water hyacinth (*Eichhornia crassipes*), Chinese privet (*Ligustrum sinense*), Japanese climbing fern (*Lygodium japonicum*), torpedo grass (*Panicum repens*) and Chinese tallow (*Sapium sebiferum*), all listed as Category I Invasive Exotics by the Florida Exotic Pest Control Council, were found in the littoral zone of Piney Z. Alligator weed (*Alternanthera philoxeroides*), and creeping oxeye (*Sphagneticola trilobata*) are Category II Invasive Exotics found in the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Piney Z LVI survey (7-24-13).

Scientific Name	Common Name
Acer rubrum	red maple
Alternanthera philoxeroides (II)	alligator weed
Ampelopsis arborea	peppervine
Andropogon sp.	broomsedge
Bacopa caroliniana	lemon Bacopa
Bidens alba	beggarticks
Bidens laevis	smooth beggartick
Bignonia capreolata	crossvine
Boehmeria cylindrica	false nettle
Cephalanthus occidentalis	buttonbush
Cinnamomum camphora (I)	camphor tree
Clethra alnifolia	coastal sweet pepper bush
Cyperus odoratus	fragrant flatsedge
Eichhornia crassipes (I)	water hyacinth
Eleocharis baldwinii	road-grass
Erichtites hieraciifolius	American burnweed
Eupatorium sp.	Eupatorium
Galium tinctorium	Stiff marsh bedstraw
Hydrocotyle sp.	water pennywort
Hydrolea quadrivalvis	waterpod
Hypericum hypericoides	St. Andrew's cross
Ipomoea sp.	morning glory
Juncus effusus	common rush
Juncus marginatus	grassleaf rush
Liquidambar styraciflua	American sweetgum
Lycopus rubellus	taperleaf water horehound
Lygodium japonicum (I)	Japanese climbing fern
Melothria pendula	creeping cucumber
Nuphar sp.	spatterdock
Nyssa sylvatica var. *biflora*	swamp tupelo
Panicum hemitomon	maidencane
Panicum repens (I)	torpedo grass
Paspalum urvillei	vaseygrass
Pinus taeda	loblolly pine
Polygonum densiflorum	denseflower knotweed
Polygonum punctatum	dotted smartweed
Pontederia cordata	pickerelweed
Rhexia mariana	Maryland meadowbeauty
Rosa palustris	swamp rose
Rubus argutus	sawtooth blackberry
Sacciolepis striata	American cupscale-grass
Sagittaria latifolia	broadleaf arrowhead
Salix caroliniana	coastal plain willow
Salvinia minima	water spangles

Sambucus canadensis	American elderberry
Sapium sebiferum (I)	Chinese tallow tree
Scirpus cyperinus	woolgrass
Solidago sp.	goldenrod
Sphagneticola trilobata (II)	creeping oxeye
Taxodium ascendens	pond cypress
Teucrium canadense	Canada germander
Vitis rotundifolia	muscadine
Woodwardia areolata	netted chain fern
Woodwardia virginica	Virginia chain fern

I - Category I Invasive Exotics
II - Category II Invasive Exotics

For additional information about the LVI, please review the Florida Department of Environmental Protection's LVI Primer document.

For more detailed information about the above species, please visit the Atlas of Florida Vascular Plants website.

For additional information about Category I and II invasive exotic plants, please visit the Florida Exotic Pest Plant Council webpage.